



BFRich Co., Inc.

Windows & Doors

Since 1957

Friday, March 28, 2003

ENERGY STAR™ Submittal

ENERGY STAR™ Windows Program

Deadline for Comment Submittals: Friday, March 28, 2003

I. Critical Focus of Submittals:

1. To convince DOE to adopt the four-zone criteria for the ENERGY STAR™ Windows Program. The rationale for our support of the four zone criteria is listed below.
2. In parallel with #1, recommend against DOE's adoption of the three-zone criteria for key reasons submitted below.

II. Addressees for ENERGY STAR™ Correspondence:

Primary:

1. Department of Energy

Fax and E-mail to:

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2. Delaware Elected Officials (Congressman and Senators)

Fax and E-mail to:

A. Website: <http://thomas.loc.gov>

B. "House" Michael N. Castle Email: Michael N. Castle (R) Fax: 302.428.1950

C. "Senate" Joseph Biden Email: senator@biden.senate.gov Fax: 302.573.6351 202-224-0139

III. Rationale for Four-Zone Alternative

1. The Four-Zone Alternative saves more energy which is a direct benefit to the environment, the economy and most specifically to the end homeowner/consumer.

Background: DOE's analysis proves that the four-zone proposal provides greater national energy savings than the alternative three-zone criteria. This savings is supported through DOE's use of industry accepted modeling software (RESFEN and DOE-2) that performs an hour by hour energy simulation using weather data specific for cities within each zone. And saving energy is a mandate of DOE and their Energy Star programs.

Marketplace Impact: Year-in, year-out, consumers will benefit from lower energy use with the four-zone alternative.

2. The Four-Zone Alternative maintains a competitive marketplace for alternate high performance Low-E glass products.

Background: The four-zone proposal recognizes the energy attribute and benefit of "high solar heat-gain Low-E products" (also referred to as pyrolytic Low-E products) in a wider geographical area as compared to the three-zone criteria. Specifically, windows that incorporate high solar heat-gain Low-E products will earn the ENERGY STAR™ label with a direct benefit to consumers in the North Central and Northern Zones. In contrast, the criteria for the three-zone restricts the use of pyrolytic Low-E products to a smaller Northern Zone which will negatively impact the competitive marketplace for alternate glass technology.

Marketplace Impact: By maintaining glass technology choice in the marketplace, regional window manufacturers will continue to tune their products for their local market which enables them to effectively compete against the larger national window companies. Preserving choice between alternate glass technologies has a direct benefit to consumers through competitive marketplace pricing.



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3. The manufacturing and processing of pyrolytic Low-E products save energy and money as compared to the processing of sputtered Low-E products.

Background: The four-zone alternative maximizes the opportunity to use pyrolytic Low-E products in contrast with the three-zone criteria which severely impacts the marketability of these products in favor of sputtered Low-E products. Prior research has proven that the production of a unit of sputtered Low-E (processed in a distinct, separate off-line electrically charged vacuum chamber) consumes up to 9 times the amount of energy to produce an equal unit of pyrolytic Low-E (produced on-line as the float glass is being produced). Further, fabricating soft-coat requires investment in equipment valued up to \$150,000 per location and training to properly handle the sensitive coating. Pyrolytic Low-E glass on the other hand can be handled comparable to standard float glass. DOE's analysis did not properly address either of these factors.

Marketplace Impact: The four-zone proposal maintains a market for an existing high-performance glass technology (i.e. pyrolytic) that saves energy and money which has a direct benefit to window manufactures and consumers. In addition, adoption of energy efficient technology is accelerated by preserving a less expensive, easier-to-use, Low-E technology.

4. DOE highlights that a substantial body of work went into defining and representing climate regions in the United States which justifies the Four-Zone map.

Background: Defining and representing the various climate conditions that exist in the United States was a direct result of the DOE's investment in A) their International Energy Conservation Code analysis and proposal through the DOE funded Pacific Northwest National Laboratory B) Building America Program and C) Energy Smart Schools.

Marketplace Impact: Program stakeholders and consumers gain trust and credibility for the Four-Zone Alternative which is based on a significant investment of tax dollars in and proven through research, analysis and technology applications.

5. DOE had already rejected the Three-Zone Criteria with a request for further analysis on the empirical data on the role of solar heat gain.

Background: As referenced in DOE's ENERGY STAR™ Window proposal, DOE's investment in research and analysis (Pacific Northwest Laboratory work on the International Energy Conservation Code, Building America Program and Energy Smart Schools) does substantiate the benefit of solar heat gain. On that basis, the Four-Zone Criteria should be adopted. Further, the energy savings realized with the Four-Zone Criteria as compared the Three-Zone alternative is further proof to DOE that solar heat gain is substantiated.

Marketplace Impact: DOE earns credibility for their research investments and programs. The net affect is that DOE as well as manufacturers and consumers benefit through increased energy savings by adopting the Four-Zone Criteria.



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6. Recent increases in natural gas are scheduled to increase customers cost by a minimum of 15% in the near future.

Background: DOE supports the Three-Zone Criteria on the basis that it reduces peak energy demand. Reducing peak energy demand is not a mandate of the ENERGY STAR™ Windows Program. Further, DOE minimizes the issue for natural gas price escalation as a temporal issue. The reality is that peak energy demand is also a temporal issue based on recent reports substantiating that the utilities are faced with a surplus of energy. On that basis, the overall energy savings result is a solid argument and should take precedence over peak energy demand. This rationale supports the Four-Zone Criteria in lieu of the Three-Zone Criteria.

Marketplace Impact: Consumers will benefit from year-in, year-out energy savings as a result of adopting the Four-Zone Criteria.

IV. Recommendation as supported by the above rationale: Implement the four-zone criteria.

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